

**Table 5-3  
CCPW Metals Analytical Results in the Unsaturated Soil Zone Compared to IGW Soil Screening Level and Soil Remediation Standards  
Carteret Avenue, Garfield Avenue Group  
PPG, Jersey City, New Jersey**

Station (G1)	Offset (G2)	Location ID (G3)	Location Elevation (ft NAVD88) (G4, G5)	Sample ID (G6, G7)	Depth Interval (ft bgs) (G8)	Sample Start Elevation (ft NAVD88) (G5, G9)	Sample End Elevation (ft NAVD88) (G5, G10)	Lab ID (G11)	Lab SDG (G11)	Date Collected (G12)	Sample Status (G13, G14)	Sample Type (G15)	Validated (Y/N) (G16)	ANTIMONY 7440-36-0 mg/kg NA 62.7		CHROMIUM 7440-47-3 mg/kg NA NA		NICKEL 7440-02-0 mg/kg NA 170		THALLIUM 7440-28-0 mg/kg 3 NA		VANADIUM 7440-62-2 mg/kg NA NA		Specific Notes	
														Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)		
0+09	2R	114TP-1S-(1)	11.8	114-TP1-S(12-19)	1.0 - 1.6	10.8	10.2	JA90809-1	JA90809	10/31/2011	Remaining	N	N			33.1									S1
0+11	17R	CAR-0+11-SW-W-2	11.8	CAR-0+11-SW-W-2-3.3-3.8	3.3 - 3.8	8.5	8.0	JC90181-2	JC90181	06/19/2019	Remaining	N	Y	< 12	U	34.9		25.3		< 5.8	U		35.1		S2

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**ABBREVIATIONS:**

bgs - below ground surface  
CAS RN - Chemical Abstracts Service Registry Number  
CCPW - Chromate Chemical Production Waste  
DIGWSSL - Default Impact to Groundwater Soil Screening Level  
El. - elevation  
FD - field duplicate sample type  
ft - feet  
IGW - Impact to Groundwater  
IGWSRS-GAG - Impact to Groundwater Soil Remediation Standard - Garfield Avenue Group (site-specific alternative remediation standard as proposed in the *Supplemental Soil Remedial Investigation Report, Final Draft*, dated 09/17/17)  
mg/kg - milligrams per kilogram  
MDL - method detection limit  
N - normal sample type  
NA - not applicable  
NAVD88 - North American Vertical Datum of 1988  
NJDEP - New Jersey Department of Environmental Protection  
NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard  
RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard  
RDCSRS-GAG - Residential Direct Contact Soil Remediation Standard - Garfield Avenue Group (alternative remediation standard approved by the NJDEP on December 28, 2016)  
RL - reporting limit  
SDG - sample delivery group  
TI - thallium  
U.S. - United States

**QUALIFIER:**

U - The analyte was not detected above the sample reporting limit shown.

**GENERAL NOTES:**

- G1. "Station" refers to a sample's location along the excavation's centerline, which runs the length of the center of Carteret Avenue starting from the westernmost edge of Carteret Avenue, as presented on Figure 5-3. Station values are presented in hundreds of feet. For example, station 1+50 is 150 feet along the excavation's centerline.
- G2. "Offset" refers to a sample's distance in feet 90 degrees from the excavation's centerline in the southeasterly direction, as presented on Figure 5-3. An addition of "R" in this column indicates the sample is located to the right of the excavation's centerline.
- G3. "Location ID" refers to the location name where samples were collected.
- G4. "Location Elevation" refers to the pre-remediation surface elevation for samples collected from the pit bottom, and the surface elevation of the sample location when the sample was collected via boring or test pit.
- G5. Elevation vertical datum is NAVD88, in U.S. survey ft.
- G6. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected.
- G7. This table compares sample results from the unsaturated zone to the DIGWSSLs and IGWSRS-GAGs. The groundwater elevation (above which is the unsaturated zone) on this Site was estimated as the 50<sup>th</sup> percentile groundwater elevation from 11 monitoring wells located in Carteret Avenue gauged between February 2007 and May 2018. The monitoring well locations and data are included in Appendix A. The estimated groundwater elevation for this Site is El. 7.2 ft NAVD88.
- G8. "Depth Interval" is based on the "Location Elevation."
- G9. "Sample Start Elevation" refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.
- G10. "Sample End Elevation" refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.
- G11. "Lab ID" refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. "Lab SDG" refers to the delivery group number assigned to the sample by the analytical laboratory.
- G12. "Date Collected" refers to the date the soil sample was collected.
- G13. "Sample Status" indicates whether a sample is remaining or removed:  
- "Remaining" indicates the soil in that interval is outside the excavation footprint and remains in-place at that location.
- G14. The post-excavation survey points and 1-ft post-excavation contours representing the as-built terminal excavation elevations are provided on Figure 5-3.
- G15. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).
- G16. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.
- G17. "Result" refers to the analytical result, which is reported in mg/kg.
- G18. Bold text indicates that the result exceeds the DIGWSSL or IGWSRS-GAG. Non-bold text indicates that the result does not exceed the DIGWSSL or IGWSRS-GAG.
- G19. "Qualifier" refers to the data qualifier assigned by the data validation team reviewing the data from the laboratory for validated data. For unvalidated data, it refers to the qualifier assigned by the laboratory.
- G20. Non-detect results are shown on this table using the method detection limit, if available; otherwise they are shown at the reporting limit.

**SPECIFIC NOTES:**

S1. This sample was collected by another party. A data validation memorandum has not been identified.

S2. At Station 0+11, Offset 17R, TI was not detected above the RL or the MDL in the post-excavation sample CAR-0+11-SW-W-2-3.3-3.8 (El. 8.5 to 8.0 ft NAVD88), but the RL and MDL were greater than the DIGWSSL. If TI was present, it would be expected to be co-located with Cr<sup>+6</sup> or other CCPW constituents. Hexavalent chromium was not detected at concentrations greater than the CrSCC (Table 5-1), CCPW metals were not detected at concentrations greater than the RDCSRSs, RDCSRS-GAGs, NRDCSRSs (Table 5-2), DIGWSSLs, or the IGWSRS-GAGs, and visual CCPW was not observed at this location.